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A-A OXYGEN GRADIENT	Abbrev	Equation	Links[1]
A-a Gradient Master	AaG mstr		
PaO2 Master	PaO2_mstr		
A-a Gradient	PA-aO2	(((FIO2)*(PB-PH2O))-(PaCO2/R))-(PaO2)	Eq Cn
A-a Gradient, age-corrected	PA-aO2_c	2.5+(0.25*age)	Eq Cn
Alveolar Oxygen Tension	PAO2	((FIO2)*(PB-PH2O))-(PaCO2/R)	Eq Cn
arterial Oxygen Tension (estimated)	PaO2_e	100-(0.33*age)	Eq Cn
arterial Oxygen Tension (estimated)	PaO2 (pos)	103.5-(0.42*age) | 104.2-(0.42*age)	Eq Cn
arterial O2 tension/Fraction of inspired O2 Ratio	PaO2/FiO2	(PaO2/FIO2)	Eq Cn
Inspired Oxygen Tension	PIO2	(FIO2)*(PB-PH2O)	Eq Cn
Barometric Pressure	PB	29.92*(((1)-(6.87535*alt*10^-6))^5.2561)	Eq Cn
Barometric Pressure (by City)	PB_city		

[1]*Eq links connect to equation pages (equation panels).
*Cn links connect to conversion pages (unit conversion panels).

OXYGEN CONTENT	Abbrev	Equation	Links[1]
Oxygen Content Master	O2C_mstr		
arterial Oxygen Content	CaO2	((Hb*1.36)*(SaO2))+(PaO2*0.0031)	Eq Cn
capillary Oxygen Content	CcO2	((Hb*1.36)*(ScO2))+(PaO2*0.0031)	Eq Cn
mixed venous Oxygen Content	CvO2	((Hb*1.36)*(SvO2))+(PvO2*0.0031)	Eq Cn
Oxygen Content Difference, arterial-venous	Ca-vO2	(((Hb*1.36)*(SaO2))+(PaO2*0.0031)) - (((Hb*1.36)*(SvO2))+(PvO2*0.0031))	Eq Cn
Oxygen Content Difference, arterial-venous (2)	Ca-vO2	(CaO2)-(CvO2)	Eq Cn
Oxygen Capacity	O2 cap	Hb*Hb_bc	
Shunt, physiologic	Qs/Qt	((CcO2-CaO2)/(CcO2-CvO2))*(100)	Eq Cn

[1]*Eq links connect to equation pages (equation panels).
*Cn links connect to conversion pages (unit conversion panels).

OXYGEN DELIVERY & CONSUMPTION	Abbrev	Equation	Links[1]
Oxygen Delivery Master	O2D_mstr		
Respiratory Quotient	R	VCO2/VO2	
Oxygen Extraction Rate	O2_ext	Ca-vO2/CaO2	Eq Cn
Oxygen Delivery	DO2	CO*CaO2*10	
Oxygen Delivery Index	DO2_I	CI*CaO2*10	
Oxygen Consumption	VO2	CO*Ca-vO2	
Oxygen Consumption Index	VO2_I	CI*Ca-vO2	
Carbon dioxide Production	VCO2	Wt*VCO2	

OXYGEN TRANSPORT	Abbrev	Equation	Links[1]
Oxygen Transport Master	O2T_mstr		
Oxygen Transport:Red cell mass ratio	OTRCM	VO2I/RCM	
Oxygen Transport:Red cell flow ratio	OTRCF	VO2I/RCFR	
Tissue Oxygen Extraction Efficiency	TOEE	Ca-vO2/RCM	
Tissue Oxygen Extraction Index	TOEI	Ca-vO2/RCFR	
Red Cell Flow Rate	RCFR	CI*Hct	

LUNG VOLUMES	Abbrev	Equation	Links[1]	
Lung Volumes Master	LVmstr			
Total Lung Capacity	TLC	IRV+VT+ERV+RV	Eq	Cn
Vital Capacity	VC	IRV+VT+ERV	Eq	Cn
Residual Volume	RV	FRC-ERV	Eq	Cn
Inspiratory Capacity	IC	IRV+VT	Eq	Cn
Functional Residual Capacity	FRC	ERV+RV	Eq	Cn
Tidal Volume	VT	Wt*VT	Eq	Cn
Closing Capacity	CC	CV+RV	Eq	Cn
CC/TLC ratio	CC/TLC	CC:TLC	Eq	Cn
CV/VC ratio	CV/VC	CV:VC	Eq	Cn
RV/TLC ratio	RV/TLC	RV:TLC	Eq	Cn

[1]*Eq links connect to equation pages (equation panels).
*Cn links connect to conversion pages (unit conversion panels).

DEAD SPACE	Abbrev	Equation	Links[1]	
Dead Space Master	VDmstr			
Dead Space (physiologic)	VD	(VT*(PaCO2-PECO2))/PaCO2	Eq	Cn
Bohr equation	Bohr	(PACO2-PECO2)/PACO2	Eq	Cn
Dead Space / Tidal Volume Ratio	VD:VT	(PaCO2-PECO2)/PaCO2	Eq	Cn

[1]*Eq links connect to equation pages (equation panels).
*Cn links connect to conversion pages (unit conversion panels).

VENTILATION	Abbrev	Equation	Links[1]	
Ventilation Master	VENTmstr			
Minute Ventilation	VE	VT*RR		
Alveolar Ventilation	VA	(VCO2*0.863)/PaCO2		
Dead space Ventilation	VD	(VE*(PaCO2-PECO2))/PaCO2		
Peak Expiratory Flow Rate (estimated)	PEFR est	(((ht*5.48)+1.58)-(age*0.041))*60		
Forced Expiratory Volume 1s (predicted)	FEV1, predicted	4.30*ht - 0.029*age - 2.49	Eq	Cn
Forced Expiratory Volume 1s (% of predicted)	FEV1, % pred	FEV1 measured/FEV1 predicted	Eq	Cn
Forced Vital Capacity (predicted)	FVC, predicted	5.76*ht - 0.026*age - 4.34	Eq	Cn
Forced Expiratory Volume 1s/Forced Vital Capacity	FEV1/FVC	FEV1/FVC	Eq	Cn

COMPLIANCE	Abbrev	Equation	Links[1]
Compliance Master	COMPmstr		
Static Compliance	Cst	VT/(plat Press - PEEP)	
Specific Compliance	Csp	Cst/FRC	
Dynamic Compliance	Cdyn	VT/(peak Press - PEEP)	
Airway Resistance	Raw	(peak Press - plat Press)	

PULMONARY MULTICALX™	Abbrev	Equation	Links[1]
A-a Gradient Master	AaG mstr		
PaO2 Master	PaO2_mstr		
Oxygen Content Master	O2C_mstr		
Oxygen Delivery Master	O2D_mstr		
Oxygen Transport Master	O2T_mstr		
Lung Volumes Master	LVmstr		

Dead Space Master	VDmstr		
Ventilation Master	VENTmstr		
Compliance Master	COMPmstr		
APACHE II Score	Apache II	Apache II algorithm	
Chronic Obstructive Pulmonary Disease Calx	COPD Calx	COPD Calx	
mMRC Dyspnea Severity Scale	mMRC Scale	MMRC Scale	
COPD Spirometric Classification	COPD class	GOLD & ATS/ERS classification	
BODE Index (BMI, Obstruction, Dyspnea, Exercise Index in COPD)	BODE Index	BODE algorithm	
Pneumonia Master	PNA mstr		
CURB-65 Score	CURB-65	algorithm	
Pneumonia Patient Outcomes Research Team	PORT Score	algorithm	
Pneumonia Severity Index	PSI	algorithm	
SMART-COP Score for CAP	SMART-COP	algorithm	
Venous Thromboembolism Calx	VTE Calx		
Pulmonary Embolism Calx	PE Calx		
Wells Score for Deep Venous Thrombosis (modified)	Wells (DVT m)	algorithm	
Wells Score for Pulmonary Embolism (modified, canadian)	Wells score PE	algorithm	
Geneva Score for Pulmonary Embolism (revised)	Geneva Score	algorithm	
Pulmonary Embolism Severity Index	PESI Score	algorithm	
Pulmonary Embolism Rule-out Criteria	PERC Rule	algorithm	
Pulmonary Parameters			

Warning: Physicians and Healthcare Professionals are responsible to employ good clinical judgement in selecting and interpreting Clinical data (inputs, outputs), and to verify all processing (data/knowledge) obtained through the use of Synt®, MediCalc®, iDox®, eH&P™, or any of ScyMed's systems and/or applications. Always double CHECK inputs and computer-generated outputs, data processing and original sources manually.
Normal values presented here are only a general guide. It is essential to check the values established by the specific Laboratory and/or Hospital performing the tests.

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